

CURRENT LITERATURE.

BOOK REVIEWS.

Bacteriology.

THE American edition of Muir and Ritchie's well-known *Manual of Bacteriology*, edited by Dr. N. McL. Harris, is a worthy representative of American bacteriology.¹ The manual, designed primarily for medical students, has been greatly improved by Dr. Harris by additions at points where the previous English editions were lacking. The increase in size to octavo and the introduction of a number of new illustrations, including some photomicrographs of excellent typographical execution, add much to the general appearance of the book, while the enlarging of the chapters on methods brings the manual nearer to the student as a source of practical information on laboratory technique.

The importance of sanitary bacteriology is recognized by the introduction of a new section on "Bacteria in air, soil and water." The increasing scope of bacteriological examinations in preventive medicine would perhaps warrant even more extensive consideration than is accorded to the subject. The chapters on the special diseases have been revised to include our more recent knowledge of bacterial etiology and diagnosis, and the theories regarding immunity are set forth in so lucid a manner that the student should obtain a most excellent working basis for further study.

As in previous editions, the style of the manual is interesting and the reader is more than ever impressed with the author's conception of bacteriology as an organic part of pathology and medicine.—E. E. IRONS.

MINOR NOTICES.

VON WETTSTEIN² has recently published a second paper on Neo-Lamarckian principles in relation to Darwinism. His position is a somewhat intermediate one between these extreme schools, whose views are discussed in relation to one another and to the mutation theory of DeVries.—B. M. DAVIS.

Trees and Shrubs, number 2, by Charles S. Sargent,³ was issued in May, 1903, and contains illustrations of two species of *Guatteria* from Central

¹MUIR and RITCHIE, *Manual of Bacteriology*. 8vo. pp. xx + 565. New York: The Macmillan Company. 1903. \$3.50.

²WETTSTEIN, R. VON, *Der Neo-Lamarckismus und seine Beziehungen zum Darwinismus*. pp. 30. Jena: Gustav Fischer. 1903. M 1.

³SARGENT, C. S., *Trees and shrubs*, pt. II, pp. 51-99. *pls.* 26-50. Boston and New York: Houghton, Mifflin & Co. 1903. \$5.00.

America, descriptions and plates of eight new species of *Crataegus*, one of *Malus*, one of *Solanum*, one of *Picea*, and a new hybrid *Cornus*. There are also illustrations and descriptions of thirteen other species, previously described elsewhere.—C. R. B.

THE CHARALES of the province of Brandenburg have been described by Holtz⁴ in an account of 136 pages which is well illustrated. This volume is one of a series that is to treat the cryptogamic flora of this region. The account of the general structure of this group is very clear, the notes on distribution are full, and the arrangement good. It seems to be an excellent piece of work of its character.—B. M. DAVIS.

RINGLE AND KENOYER have attempted to meet the demand on the part of district-school teachers and high-school pupils for a simple means of determining the local spring flora.⁵ The addition of laboratory hints, outlines of morphology, and directions for the preparation of an herbarium, makes it more than a manual, but its subject-matter is wholly inadequate if it is supposed to comprehend the entire botanical knowledge of the high-school graduate.—J. M. WESTGATE.

AS A COMPANION book to *Our Native Trees* Miss Keeler⁶ publishes a similar work on shrubs. The work contains very excellent descriptions of nearly all the native northern shrubs and many common cultivated ones. Accompanying each description is a well-made half-tone illustration of the form. In many instances so good are these figures that they are sufficient to identify the plants. Each description contains many interesting facts about the habits of the shrub. A very simple key is given by which one who is not a professional botanist may identify them. Indeed, the book is intended for the amateur, the lover of nature, and those interested in landscape gardening.—H. N. WHITFORD.

THE LEGUMINOSAE collected in the states of Michoacan and Guerro in Mexico during the years 1898 and 1899 by Eugène Langlassé have been elaborated by the late Marc Micheli.⁷ The purpose of Langlassé's exploration was mainly horticultural and the collection of dried plants for the herbarium was purely incidental. Moreover, his collections of all kinds were primarily of the plants having some interest for the horticulturist, or of importance from the point of view of agriculture or forestry. In spite of this, the

⁴HOLTZ, L., Characeen. Kryptogamenflora der Mark Brandenburg, Vol. IV, Part I. pp. vi + 136. Illustrated. Leipzig: Gebrüder Borntraeger. 1903.

⁵RINGLE, W. E., and KENOYER, L. A., Students' botany of eastern Kansas. 8vo. pp. v + 213. Topeka: Crane & Company, 1903.

⁶KEELER, HARRIET L., Our northern shrubs and how to identify them. 8vo. pp. xxx + 521. pls. 205. figs 35. New York: Charles Scribner's Sons. 1903.

⁷MICHELI, MARC, Leguminosae Langlasseanae récoltées dans les états Mexicains de Michoacan et de Guerro pendant les années 1898 et 1899, par Eugène Langlassé. Mém. Soc. Phys. d'Hist. Nat. Genève 34. 245-294. pls. 28. 1903.

number of novelties which M. Langlassé brought back is rather remarkable and indicates the richness of the country in new forms. In the Leguminosae, represented by 237 numbers, M. Micheli finds 26 new species and a new genus, *Goldmania*, the latter described by Mr. J. N. Rose, of the U. S. National Museum, while many other of the species listed have only recently been published from collections of American botanists. The novelties are illustrated by twenty-eight elegant lithograph plates.—C. R. B.

A CRITICAL ACCOUNT of the algae of northwestern America by Setchell and Gardner⁸ has appeared as one of the admirable publications of the University of California. In this paper of 250 pages, with 10 plates, are listed all the known species of algae, excluding the diatoms and desmids, found north of Cape Flattery to the region of Kotzebue Sound in the Arctic coast of Alaska. The authors have had access to a large number of collections, many of them gathered by government parties and other expeditions, and have themselves visited much of the region. They have handled, therefore, probably the largest amount of material ever brought together from this region.

The species are enumerated under the most generally accepted classification, with explicit references to all the specimens examined, and with critical notes on their conditions and peculiarities of structure, habit, and distribution.

A large number of new species and forms are described and figured. Although attention is called to them by printing the names in heavy type, the taxonomic compiler must laboriously pick them out from the main body of the account. A list of these new species properly indexed would have obviated this difficulty.

The authors have refused to change names or upset well-established nomenclature by the application of arbitrary rules, "holding that a name which has been recognized for a quarter of a century, or thereabouts, is to be considered fixed and not to be unsettled simply because another may have been proposed earlier, but hitherto neglected for good or even for no real reasons."—B. M. DAVIS.

NOTES FOR STUDENTS.

KNY⁹ finds in three plants (*Lupinus albus*, *Lepidium sativum*, *Vicia sativa*) that diffuse daylight retards the growth in length of soil roots, while darkness is advantageous to it.—C. R. B.

ZEILLER describes¹⁰ the occurrence of species of Zamites, Sphenopteris, and Pagiophyllum, from the Upper Jurassic of the province of Catalonia in

⁸ SETCHELL, W. A., and Gardner, N. L., Algae of northwestern America. Univ. Calif. Pub. Bot. 1: 165-418. pls. 17-27. 1903.

⁹ KNY, L., Ueber den Einfluss des Lichtes auf das Wachstum der Bodenwurzeln. Jahrb. Wiss. Bot. 38: 421-446. 1902.

¹⁰ ZEILLER, RENE, Sobre algunas impresiones vegetales del Kimeridgense de Santa Maria de Meya. Memor. Real Acad. cienc. y artes Barcelona.